

UL SYSTEM NO. F-C-2231

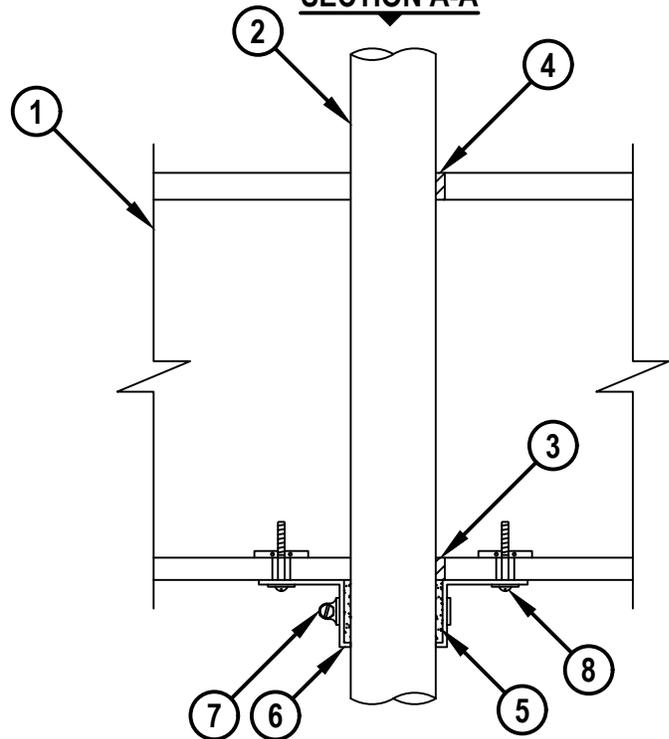
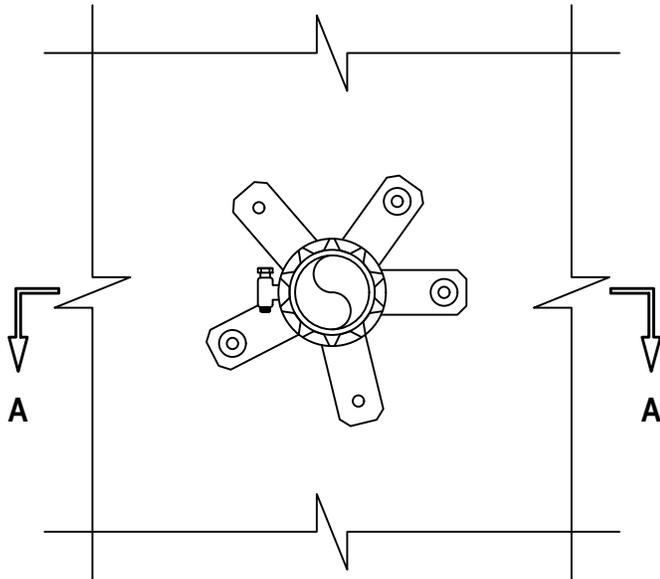
# PLASTIC PIPE THROUGH WOOD FLOOR/CEILING ASSEMBLY

F-RATING = 1-HR.

T-RATING = 1-HR.

**BOTTOM VIEW**

**SECTION A-A**



FC2231e.082024

1. WOOD FLOOR/CEILING ASSEMBLY (UL CLASSIFIED L500 SERIES) (1-HR. FIRE-RATING).
2. PENETRATING ITEM TO BE ONE OF THE FOLLOWING :
  - A. MAXIMUM 2" NOMINAL DIAMETER PVC PLASTIC PIPE (SCHEDULE 40 SOLID OR CELLULAR CORE OR SCHEDULE 80 SOLID CORE) (CLOSED OR VENTED PIPING SYSTEM).
  - B. MAXIMUM 2" NOMINAL DIAMETER ABS PLASTIC PIPE (SCHEDULE 40) (CELLULAR OR SOLID CORE) (CLOSED OR VENTED PIPING SYSTEM).
  - C. MAXIMUM 2" NOMINAL DIAMETER CPVC PLASTIC PIPE (SDR 13.5, SCHEDULE 40 OR SCHEDULE 80) (CLOSED OR VENTED PIPING SYSTEM).
3. MINIMUM 5/8" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT AT CEILING.
4. MINIMUM 3/4" DEPTH HILTI FS-ONE MAX INTUMESCENT FIRESTOP SEALANT AT SUBFLOOR.
5. HILTI CP 648E WRAP STRIP (NOMINAL 3/16" THICK x 1-3/4" WIDE) CONTINUOUSLY WRAPPED AROUND THE OUTER CIRCUMFERENCE OF THE PIPE, COVERING ONE TIME, WITH ENDS BUTTED AND HELD IN PLACE WITH TAPE.
6. HILTI RETAINING COLLAR WRAPPED OVER WRAP STRIPS, OVERLAPPING MINIMUM 1".
7. NOMINAL 1/2" WIDE STAINLESS STEEL HOSE CLAMP FASTENED AT MID-HEIGHT OF HILTI RETAINING COLLAR.
8. EVERY OTHER TAB OF RETAINING COLLAR SECURED TO GYPSUM CEILING WITH 1/4" DIAMETER x 1-1/2" LONG STEEL TOGGLE BOLTS WITH 3/4" DIAMETER WASHERS (EX. HILTI TOGGLER BOLTS).

**NOTES :** 1. MAXIMUM DIAMETER OF OPENING = 2-5/8".  
2. ANNULAR SPACE = MINIMUM 0", MAXIMUM 1/4".



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Sheet	1 of 1
Scale	3/16" = 1"
Date	Aug. 20, 2023

Drawing No.

**FC  
2231e**

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